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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------|-------------|----------------------|---------------------|------------------|
| 09/939,067 | 08/25/2001 | Daryl V. McDaniel | BEA920010017US1 | 4231 |
| 25253 | 7590 | 03/05/2004 | EXAMINER | |
| | | | MASON, DONNA K | |
| IBM CORPORATION | | ART UNIT | | PAPER NUMBER |
| IP LAW DEPT, ED02-905 | | 2111 | | |
| 15450 SW KOLL PARKWAY | | | | |
| BEAVERTON, OR 97006-6063 | | | | |
| DATE MAILED: 03/05/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/939,067

Applicant(s)

MCDANIEL, DARYL V.

Examiner

Donna K. Mason

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 August 2001.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 August 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "301", "302", and "304". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Regarding claim 2, the phrase "at least one of an error log and a register" renders the claim indefinite because it is unclear whether applicant intends to claim at least one of an error log and at least one of a register, or at least one error log and a single register, or any other number of possibilities. However, for examination purposes, it should be noted that claim 2 has been interpreted such that the recommendation and information is stored in at least one error log or in at least one register.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,768,599 to Yokomizo.

With regard to claims 1 and 7, Yokomizo discloses a system and method including a storage (Fig. 4, item 9), a processor (Fig. 1, item 13) generating an interruption, an interruption handler (Fig. 1, item 4) receiving the interruption, and storing a recommendation for handling the interruption and information regarding the interruption in the storage, and an operating system (Fig. 1, item 6) having a predetermined interruption handling point called by the interruption handler, the interruption handler subsequently examining the storage to determine whether the operating system handled the interruption according to the recommendation.

Therefore, Yokomizo reads on the invention as claimed.

7. Claims 1, 4-7, 10, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,003,108 Thielen.

With regard to claims 1 and 7, Thielen discloses a system and method including a storage (Fig. 5, item 150), a processor (Fig. 5, item 140) generating an interruption, an interruption handler (Fig. 5, item 510) receiving the interruption, and storing a recommendation for handling the interruption and information regarding the interruption in the storage, and an operating system (Fig. 5, item 220) having a predetermined interruption handling point called by the interruption handler, the interruption handler subsequently examining the storage to determine whether the operating system handled the interruption according to the recommendation.

With regard to claims 4-6, Thielen discloses the method further initially including receiving the interruption (column 2, lines 44-45 and column 3, lines 61-64), and after receiving the interruption from the hardware, formulating the recommendation for handling the interruption (column 4, lines 21-24).

With regard to claims 10 and 11, Thielen discloses the system where the interruption generated by the processor includes an interruption selected from the group of interruptions essentially consisting of: an abort, an interrupt, a fault, and a trap (column 2, lines 44-45).

Therefore, Thielen reads on the invention as claimed.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2, 3, 8, 9, and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thielen in view of U.S. Patent No. 6,675,324 to Marisetty, et al. ("Marisetty").

As discussed above with regard to the 35 U.S.C. 102(e) rejection of claims 1 and 7, Thielen discloses all the features of those claims. With regard to claims 2, 3, 8, 9, and 16, Thielen does not expressly disclose a system and method where the storage includes an error log or a register. However, Marisetty discloses a system and method where the storage includes an error log (column 4, lines 26-28) having a first and subsequent entries, the interruption handler storing the recommendation for handling the interruption in the first entry, and at least part of the information regarding the interruption in the subsequent entries. Marisetty further discloses a system where the storage includes a register (column 1, lines 59-63) in which the interruption handler stores part of the information regarding the interruption, and which the interruption handler examines for status information stored therein by the operating system to determine whether the operating system handled the interruption according to the recommendation.

With regard to claims 12-14, Thielen does not expressly disclose a system where the interruption handler is part of a system abstraction layer (SAL) of the system. Marisetty discloses a system where the interruption handler is part of a SAL of the system (Fig. 2, item 212 and column 6, lines 12-13).

With regard to claims 15, 17, and 18, Thielen discloses means for storing a recommendation for handling a processor interruption and information regarding the interruption in a storage, for calling an operating system at a predetermined interruption handling point, and for examining the storage to determine whether the operating system handled the interruption according to the recommendation (Fig. 5, item 510 and column 10, lines 3-48). Thielen also discloses where the means is further for formulating the recommendation for handling the interruption (column 4, lines 21-24), and that the interruption is selected from the group of interruptions essentially consisting of: an abort, an interrupt, a fault, and a trap (column 2, lines 44-45).

With regard to claims 19 and 20, Thielen does not expressly disclose all the features of those claims. However, Marisetty discloses where the medium is a recordable data storage medium, and where the medium is a modulated carrier signal (column 8, lines 65-67 to column 8, lines 1-17).

Thielen does not expressly disclose an article including a computer-readable medium, as recited in independent claim 15. Marisetty discloses an article including a computer-readable medium (column 9, lines 12-15).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Marisetty with Thielen. The suggestion or motivation for doing so would have been to provide error handling in multiprocessor systems (see Marisetty, column 2, lines 63-64).

Therefore, it would have been obvious to combine Marisetty with Thielen to obtain the invention as specified in claims 2, 3, 8, 9, and 12-20.

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Conclusion

10. A shortened statutory period for reply is set to expire THREE MONTHS from the mailing date of this communication. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this communication.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donna K. Mason whose telephone number is (703) 305-1887. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H. Rinehart can be reached on (703) 305-4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DKM

A handwritten signature "DKM" is written over a circular official stamp. The stamp contains the text "TECHNICAL SUPERVISOR" around the perimeter and "MARCH 2005" in the center. There is also some smaller, illegible text within the circle.